



Pulse isolator

9202A

- Interface for NAMUR sensors and switches
- Extended self-diagnostics and detection of cable fault
- 1 or 2 channels
- Can be supplied separately or installed on power rail, PR type 9400
- SIL 2-certified via Full Assessment













Advanced features

- Configuration and monitoring by way of detachable display front (PR 4511/4501).
- · Selection of direct or inverted function for each channel via PR 4511/4501.
- · Advanced monitoring of internal communication and stored
- · Optional redundant supply via power rail and/ or separate
- SIL 2 functionality is optional and must be activated in a menu

Application

- · The device can be mounted in and receive signals from nonclassified area and zone 2.
- · Pulse isolator for transmission of signals from NAMUR sensors and mechanical switches.
- · Monitoring of error events and cable breakage via the individual status relay and/or a collective electronic signal via the power rail.
- · The 9202A has been designed, developed and certified for use in SIL 2 applications according to the requirements of IEC 61508.

Technical characteristics

- 1 green and 2 yellow/red front LEDs indicate operation status and malfunction.
- · 2.6 kVAC galvanic isolation between input, output and supply.

Mounting

· The devices can be mounted vertically or horizontally without distance between neighbouring units.

Applications Input signals: Output signals: Channel 1: Mechanical NAMUR Opto + N.O. or Ch. 2: Õpto -Relay Ch. 1: Opto + Ch. 1: N.O. or Ch. 1: N.C. Opto -Power rail Status relay signal Rail, +24 VDC Rail, -24 VDC Channel 2: Power connection: NAMUR Supply Supply + 19.2...31.2 VDC Device status N.C. vice status

Order:

Type	Switch	1	Chann	els
9202A	Opto	: 1	Single	: A
	Relay N.O.	: 2	Double	: B
	Relay N.C.	: 3		

Environmental Conditions

Operating temperature	-20°C to +60°C
Storage temperature	-20°C to +85°C
Calibration temperature	2028°C
Relative humidity	< 95% RH (non-cond.)
Protection degree	IP20
Installation in	Pollution degree 2 &
	cat. II

Mechanical specifications

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Dimensions (HxWxD)	109 x 23.5 x 104 mm
Dimensions (HxWxD) w/ 4501	
/ 4511	109 x 23.5 x 116 / 131 mm
Weight approx	170 g
Weight incl. 4501 / 4511 (approx.)	185 g / 270 g
DIN rail type	DIN EN 60715/35 mm
Wire size	0.132.08 mm ² AWG 2614
	stranded wire
Screw terminal torque	0.5 Nm
Vibration	IEC 60068-2-6
213.2 Hz	±1 mm
13.2100 Hz	±0.7 g

Common specifications

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Supply voltage	19.231.2 VDC
Fuse	400 mA SB / 250 VAC
Max. required power	≤ 3 W (2 channels)

Isolation voltage

Test /working: Input to any	
	reinforced isolation
Analog output to supply	reinforced isolation
Output 1 to output 2	1.5 kVAC / 150 VAC reinforced isolation
Status relay to supply	1.5 kVAC / 150 VAC
	reinforced isolation

Auxiliary supplies

NAMUR supply	8 VDC / 8 mA	
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Input specifications

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Output specifications

Relay output

Max. switching frequency	20 Hz
Max. voltage	250 VAC / 30 VDC
Max. current	2 AAC / 2 ADC
Max. AC power	500 VA / 60 W

Status relay

Max. voltage	110 VDC / 125 VAC
Max. current	0.3 ADC / 0.5 AAC
Max AC power	62 5 VA / 32 W

NPN outputs

Max. switching frequency	5 kHz
Min. pulse length	> 0.1 ms
Max. load, current / voltage	80 mA / 30 VDC
Voltage drop at 80 mA	< 2.5 VDC

Observed authority requirements

EMC	2014/30/EU
LVD	2014/35/EU
FAC.	TR-CI 020/2011

Approvals

UL	UL 61010-1
DNV-GL Marine	Stand. f. Certific. No. 2.4
SIL	SIL 2 certified & fully assessed
	acc. to IEC 61508